AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1 to 8. (Canceled).

9. (New) A process for producing one of (a) half-tubes and (b) a tube of a metallic, high-temperature-resistant material with a plurality of openings passing through a surface of the one of (a) the half-tubes and (b) the tube for fabricating heat-exchanger tubes for a recuperative waste gas heat exchanger, comprising:

forming a model, destroyable by heat, of each of the one of (a) the half-tubes and (b) the tube;

forming a mold shell by finishing with a conventional gate system and immersion of the model in a ceramic coating composition and sanding with a cast shell ceramic material, alternating in several cycles;

melting-out of the model from the mold shell;

hardening the mold shell by firing;

producing a melt from the metallic, high-temperature-resistant material;

casting the melt in the mold shell one of (a) by applying a vacuum and (b) under excess pressure of an inert gas;

removing, after solidification of the melt, the one of (a) the half-tubes and (b) the tube from the mold by destroying the mold shell;

cleaning and trimming the one of (a) the half-tubes and (b) the tube and removing a sprue; and

post-treating, as necessary, the opening passing through the surface of the one of (a) the half-tubes and (b) the tube by one of (a) spark erosion and (b) blasting with an abrasive blasting agent.

10. (New) The process according to claim 9, wherein the model is melted out from the mold shell in the melting-out step in an autoclave.

11. (New) The process according to claim 9, wherein the spark erosion includes electrodischarge machining.

12. (New) The process according to claim 9, further comprising joining two half-tubes by one of (a) high-temperature soldering and (b) fusion welding to form a heat exchanger tube.

13. (New) The process according to claim 9, wherein a material of the model includes wax.

14. (New) The process according to claim 9, wherein the casting of the melt in the mold shell is performed in an absence of reactive gases.

15. (New) The process according to claim 9, wherein the casting of the melt in the mold shell is performed one of (a) *in vacuo* and (b) under an inert gas atmosphere.

16. (New) The process according to claim 9, wherein the casting of the melt in the mold shell includes pouring the melt into a hot mold shell.

17. (New) The process according to claim 9, wherein the high-temperature-resistant material includes a nickel-based alloy.

18. (New) The process according to claim 9, wherein the high-temperature-resistant material includes IN 625.

19. (New) The process according to claim 9, wherein the openings are elliptical in shape.

20. (New) The process according to claim 9, wherein a length of the one of (a) the half-tubes and (b) the tube is 500 mm, and a radius of the one of (a) the half-tubes and (b) the tube is 62.50 mm.

21. (New) The process according to claim 9, wherein a length of the one of (a) the half-tubes and (b) the tube is 750 mm to 900 mm, and a radius of the one of (a) the half-tubes and (b) the tube is 37.50 mm.

22. (New) A half-tube formed of a metallic, high-temperature-resistant material with a plurality of openings passing through a surface thereof for fabricating heat-exchanger tubes for a recuperative waste gas heat exchanger, comprising:

forming a model, destroyable by heat, of the half-tube;

forming a mold shell by finishing with a conventional gate system and immersion of the model in a ceramic coating composition and sanding with a cast shell ceramic material, alternating in several cycles;

melting-out of the model from the mold shell;

hardening the mold shell by firing;

producing a melt from the metallic, high-temperature-resistant material;

casting the melt in the mold shell one of (a) by applying a vacuum and (b) under excess pressure of an inert gas;

removing, after solidification of the melt, half-tube from the mold by destroying the mold shell;

cleaning and trimming the half-tube and removing a sprue;

post-treating, as necessary, the opening passing through the surface of the half-tube by one of (a) spark erosion and (b) blasting with an abrasive blasting agent;

wherein the openings are elliptical in shape.

23. (New) The half-tube according to claim 22, wherein one of (a) a length of the half-tube is 500 mm, and a radius of the half-tube is 62.50 mm, and (b) a length of the half-tube is 750 mm to 900 mm, and a radius of the half-tube is 37.50 mm.

24. (New) A tube formed of a metallic, high-temperature-resistant material with a plurality of openings passing through a surface thereof for fabricating heat-exchanger tubes for a recuperative waste gas heat exchanger, comprising:

forming a model, destroyable by heat, of the tube;

forming a mold shell by finishing with a conventional gate system and immersion of the model in a ceramic coating composition and sanding with a cast shell ceramic material, alternating in several cycles;

melting-out of the model from the mold shell;

hardening the mold shell by firing;

producing a melt from the metallic, high-temperature-resistant material;

casting the melt in the mold shell one of (a) by applying a vacuum and (b) under excess pressure of an inert gas;

removing, after solidification of the melt, tube from the mold by destroying the mold shell;

cleaning and trimming the tube and removing a sprue;

post-treating, as necessary, the opening passing through the surface of the tube by one of (a) spark erosion and (b) blasting with an abrasive blasting agent;

wherein the openings are elliptical in shape.

25. (New) The tube according to claim 24, wherein one of (a) a length of the tube is 500 mm, and a radius of the tube is 62.50 mm, and (b) a length of the tube is 750 mm to 900 mm, and a radius of the tube is 37.50 mm.